CLAIMS

1. A method for producing polyphenylene ether, which comprises

(a) a step for synthesizing polyphenylene ether by subjecting phenol to oxidative polymerization in the presence of a copper compound and amines in an aromatic compound solvent,

(b) a step for precipitating polyphenylene ether particles by adding methanol into the solution of polyphenylene ether in the aromatic compound solvent obtained by the step (a),

(c) a step for solid-liquid separating a slurry of polyphenylene ether obtained by the step (b), and then washing the separated polyphenylene ether particles with methanol to obtain the polyphenylene ether,

(d) a step for adding water to a filtrate obtained by the step (c) to mix them, and then liquid-liquid separating the mixture into a phase consisting mainly of the aromatic compound and a phase consisting mainly of methanol and water, and

(e) a step for supplying the phase consisting mainly of methanol and water, obtained at the step (d) to the middle portion of a distilled column to perform distillation, and separating out a distillate liquid consisting mainly of methanol, a bottom liquid consisting mainly of water and a side-cut liquid containing the amines by distillation, recycling the distillate liquid consisting mainly of methanol as methanol of the steps (b) and (c), and recycling the side-cut liquid as part of the filtrate of the step (d).

2. The method of claim 1, wherein the amines are amines which make an azeotrope with water.

3. The method of claim 1, wherein the amount of methanol added at the step (b) is 1 to 2 times by weight of the aromatic compound in the solution.

4. The method of claim 1, wherein water is added so that the weight ratio of water/methanol in the liquid-liquid separated raw material solution in the step (d) is 0.5 to 1.5.

5. The method of claim 1, wherein the phase consisting mainly of methanol and water, to be distilled in the step (e) contains 40 to 60 wt% of methanol, 40 to 60 wt% of water and 0.1 to 0.3 wt% of the amines.

6. The method of claim 1, wherein the amount of side-cut liquid is 0.5 to 5 wt% based on the phase consisting mainly of methanol and water, to be distilled.

7. The method of claim 1, the concentration of the amines in the distillate solution in the step (e) is less than 0.1 wt% and the concentration of the amines in the bottom liquid is less than 0.01 wt%.

8. The method of claim 1, wherein an anti-foaming agent and/or sodium hydroxide are/is added to the phase consisting mainly of methanol and water, to be distilled in the step (e), and carrying out side-cut between the stage supplying a raw material and the top of the distillation column.